Claims

What is claimed is:

1. A method of for manufacturing a TFT array panel of a liquid crystal display, said method comprising the steps of:

forming a substrate, a transparent conducting metal layer being formed on the substrate, and then the first masking process being processing for defining at least a gate electrode, a storage capacitor electrode, and a transparent conducting electrode;

forming a first metal wiring layer by using a selective deposition method for implementing the wiring layout of the gate electrode, the storage capacitor electrode, a dielectric layer, an A-Si layer, and a poly-Si layer being deposited in order;

processing the second masking process to form the contact window of the transparent conducting electrode;

processing the third masking process for defining a source/drain, and depositing the second metal wiring layer;

etching the poly-Si layer, and channeling the first metal wire and the second metal wire;and

processing deposition to form a passivation layer, and disclosing the parts of the transparent conducting electrode.

2. The method of manufacturing TFT-LCD array panel

according to claim 1, wherein said transparent conducting metal layer can be made of ITO or IZO.

3. The method of manufacturing TFT-LCD array panel according to claim 1, wherein said first metal wire can be made of Al, Cu, Ag, Mo, Cr, Ti, W, or other alloy materials.

4. The method of manufacturing TFT-LCD array panel according to claim 1, wherein the deposition process can be against of multi-layer materials and structural layers induced from metal materials such as diffusion, and adhesion before the step of forming the first metal wire.

5. The method of forming TFT-LCD array panel according to claim 1, wherein said second metal wires can be Al, Cu, Ag, Mo, Cr, Ti, or W as well as low-resistance metals, other alloy materials, or the induced material such as diffusion, and adhesion with multi-layer structure of the metal material.

6. The method of forming TFT-LCD array panel according to claim 1, wherein the first masking process, the second masking process, the third masking process, and the fourth masking processing can include lithography etching method.

7. The method of manufacturing a TFT-LCD array panel according to claim 1, wherein the deposition method of the A-Si layer, the transparent conducting layer, or gate

electrode can use PVD, Low pressure CVD, or plasma enhanced CVD to implement.

8. The method of manufacturing a TFT-LCD array panel according to claim 1, wherein said method forming for the first metal wiring layer can be a selective deposition method, and the selective deposition method uses the selective conducting wiring layout to deposit the metal on the right position.

9. The method of manufacturing a TFT-LCD array panel according to claim 1, wherein the A-Si layer can be made of A-Si, or poly-Si materials.

10. The method of manufacturing a TFT-LCD array panel according to claim 1, wherein the passivation layer can be made of SiO_2, silicon nitride material, or other organic materials.